# NOTE 6: Videos for Agricultural Extension

**Compiled by: Jeffery Bentley, Ataharul Chowdhury, and Soniia David, August 2015**

There is plenty of information available in the public domain that covers various aspects of extension and know-how about new methodologies for implementation. However this information is often scattered and presented in complex academic language. Hence practitioners, who often have very limited time and/or may only have basic formal education, find it difficult to make use of this information.

The Global Good Practices Initiative aims to bridge this gap by providing information about extension approaches and methods in easy-to-understand formats. As part of this effort, it makes "Good Practice Notes" available to all at www.betterextension.org. This Note contains one of the extension methods included in this series.



## Introduction

Videos, especially digital ones, are a relatively new technology. Videos may help to meet the challenges of disseminating information to farmers and reaching the poor, marginalised, women, and young people. Some uses of video in agriculture include raising awareness, stimulating demand for support, farmer-to-farmer extension, training on agricultural innovations, stimulating creativity, and as a tool for documenting and monitoring and evaluation (M&E).

The different types of video include documentary (describing events), institutional (promoting a project or an organisation), instructional (developed mainly by researchers with limited input from farmers), farmer-learning videos (made with farmers), and participatory videos (made by farmers).

## Philosophy and principles

Videos as agricultural extension and learning tools should be based on the following principles:

**Relevant content:** Video content must be based on farmers' needs and scientific principles. Even a video that introduces a new practice should involve farmers who have already tried the practice and made it farmer-friendly.

**Farmers first:** Involve farmers in the development of the video, depict them in the video (e.g. demonstrating ideas, explaining why things work), and involve them in the dissemination to ensure that their views are represented.

**Focus content on principles, encourage experimentation:** To ensure that videos have wider relevance beyond a few communities, the content should present a menu of technical options that farmers can experiment with. Explain the underlying principles of each innovation to encourage discovery learning.

**Quality:** Videos must have good quality audio and visual, a solid story structure, and a relevant message in order to capture the audience's attention, engage their thinking, and stimulate learning.

**Combine with other methods:** For training, information, and knowledge sharing, it may be necessary to combine video with other extension approaches such as demonstrations, group discussion, and printed materials.

**Institutionalisation and policy:** ICTs as extension tools need to be institutionalised within rural advisory services through appropriate policies and regulatory frameworks.

## Implementation

**Producing a video:** Before you produce a video, think about how you plan to disseminate and use it. There are six basic steps to producing any type of video: conceiving a topic, planning, producing the video, validating, distribution, and monitoring and evaluating (Figure 1). Who plays the lead role in each step will depend on what type of video you
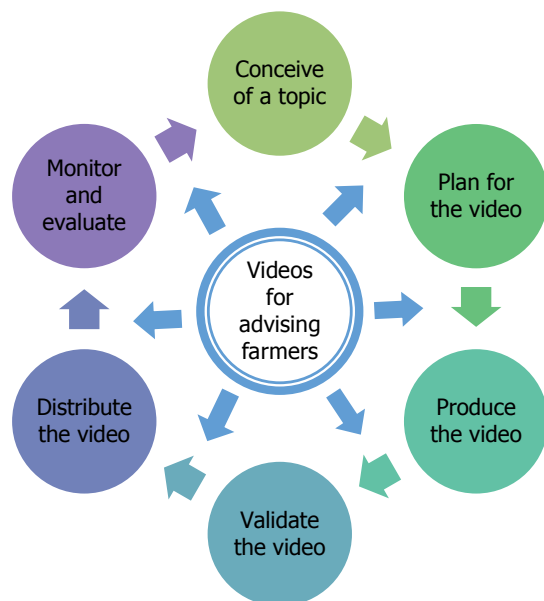
**Figure 1. Steps in making a video**

want to develop, but all videos for agricultural extension and learning will involve scientific organisations, partner organisations (e.g. non-government organisations (NGOs), extension services, farmer organisations), farmers, and other rural stakeholders. If farmers will be making the film themselves, it will be necessary for the video production team to work with film professionals who will provide guidance and train them on basic film-making. Scientists, extension staff, and film professionals should always listen carefully to farmers so that the finished video reflects their perspectives and conveys a message that is technically accurate.

Focus each video on a single topic. Prepare for filming by writing a story board or a draft script based on what you know and what you learn in the field. Videos can be just a few minutes long, and shouldn't be longer than 20 minutes. Ensure that a diversity of farmers (women, men, the poor, youth etc.) and rural people (landless, market sellers, etc.) appear in the video.

After filming, edit the clips and order them according to your story board or script. Then you can add narration, music, titles, and end credits. Keep text to a minimum, e.g. avoid sub-titles. Once you have a first draft of the video, show it to farmers, extension agents, scientists, etc. to ensure that farmers understand the message, that it includes logical and scientific explanations, and that the visuals help explain the content.

Once a video is finalised, it can be translated into local and international languages and printed onto a DVD. Videos may also be distributed on USB sticks, tablets, mobile phones (not just smart phones), pico projectors (pocket-sized projectors that can be run from smart phones or tablets), and smart projectors.

Using videos for extension: Videos can be used for many purposes including disseminating information, training, and

encouraging innovation. Videos can be distributed in many ways: directly to farmers, or through extension services, radio stations, value chain actors (e.g. buyers or processors), and farmer organisations. Videos can be screened in rural communities (through group meetings, village shows, video shacks etc.) with the help of community-based facilitators, extension agents, or others. Video viewing clubs, which bring together a group of farmers led by a facilitator, are a structured approach for video-based training. When screening videos for the public, you will need to identify a suitable venue and have the necessary equipment such as a power source, video playing equipment, and some sort of screen.

Monitoring and evaluation: Continuous monitoring and impact assessment of video are important functions that can be carried out in many ways (field studies, surveys, or by software that monitors viewing).

## Capacities required
The number and type of people you need to produce a video will depend on who will lead the production (film professionals or farmers). For videos developed by film professionals, the team should consist of a camera person, someone who understands the local farming system, and one who knows the community. The team meets with farmers in various communities. Videos developed by farmers themselves require a team of a dozen farmers supported by several video professionals (to facilitate meetings with farmers and train them in using the video equipment). Depending on how videos are to be used, there may be a need to develop the capacities of rural service providers or farmers to facilitate their use at community level.

## Costs
Video equipment is like buying a car; the hardware can be used many times, and the more you use it, the more you get for your money. Basic equipment may cost as little as US$500 (see Box 1). You can keep costs down by using free software and less expensive equipment (e.g. flip camera, smartphone, iPad etc.). Better equipment produces better quality videos that people want to watch.

The cost of using video as an extension tool will depend on how you use it and how many people you reach. For example, you can reach each viewer for US$0.50 or less when farmer-learning videos are distributed on DVDs for villagers to watch without facilitation, or if videos are broadcast on television. On the other hand, a structured group-based training approach lasting six months may cost about US$78 to train one farmer.[1]

## Strengths and weaknesses
Strengths
- Allows verbal and visual communication, making it possible to explain abstract concepts and underlying principles.
- People remember more of what they see than of what they hear.
- Helps to standardise technical information for accurate transmission.

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[1]  Muilerman, S. and David, S. 2011. *Costs associated with farmer field schools and video viewing clubs on cocoa integrated crop and pest management: The experience of STCP*. Impact Brief No. 8. Sustainable Tree Crops Program. Accra, Ghana: International Institute of Tropical Agriculture.

- A process that happens over several weeks can be shown in 15 minutes.
- Presenting a technical message from a farmer perspective through video encourages innovation and trust, which increases the chances of a technology being adopted by local people.
- Reaches many people, even across regions and languages.
- Can be used with traditional media (radio, TV) and with new media (social networking) and can be combined into farmer field schools or other types of participatory research and extension approaches.

Weaknesses
- Not everyone can afford the equipment needed to produce quality videos.
- Video screening may need to be combined with other methods (e.g. field demonstration) to teach new skills and practices.
- Certain operations can only be filmed at certain times of the year (e.g. planting, weeding, harvesting) or may require various visits to the field to film them, increasing the cost of video production and the time needed to produce the video.

## Long-term sustainability

Sometimes it seems that making the video is the easy part. Distributing videos over a wide area is challenging. You can usually find a shop that will print thousands of copies for you. These may cost as little as US$1 each, but getting them into the hands of farmers will require a distribution plan and partner organisations that work in different areas.

Lack of electricity and viewing equipment at the village level are widely perceived to be problems with videos. However, in recent years more villagers have mobile phones, which they charge on solar panels or at shops in the small towns. Videos can now be downloaded even onto cheap mobile phones. Most villages have at least one TV with a DVD player and a solar-powered battery.

## Best-fit considerations

Target groups: Video can reach a wide range of target groups including the poor, women, and young people. The approach is especially suitable for low literacy populations, a disproportionate number of whom tend to be women. Young people are also attracted to video and other forms of new media.

Innovations: Video is a versatile tool, appropriate for sharing information on many agricultural innovations, but also for stimulating farmers to conduct their own experiments and adapt the technologies. Videos that focus on discovery learning (that tell viewers why something works) are easier to up-scale (take to wider areas). Video is suitable for showing events that happen over several years (e.g. the effects of soil erosion) or months (e.g. a cropping calendar).

Institutional setting: Video can be used for multiple objectives, and is an appropriate tool in most institutional settings. Video is appropriate as a training tool where farmers are organised, but can also be shown in loosely organised gatherings. Showing videos is easier where there is electricity, television, and internet, but technical change is rapidly making videos easier to watch off the grid.

## Governance

Videos can be integrated into pluralistic extension systems involving government, NGOs, farmer organisations, and the private sector. While many video projects are started by NGOs and international organisations, other service providers have integrated the videos into their programmes. Even people who do not make videos themselves can use videos in extension.

## Evidence of impact and potential scalability

In studies of farmer-learning videos in Benin and Uganda, rice-growing communities could remember the contents of rice videos 5 years after viewing them and had made technical and institutional innovations (e.g. contacting extensionists to request rice seed).[2] Women's groups in Benin that watched videos innovated more, and strengthened their groups to produce and sell parboiled rice.[3] Ghanaian cocoa farmers trained through video viewing clubs had significantly improved knowledge of technical topics compared to a control group.[4]

Video is highly scalable even across regions and cultures (Box 2). Digital Green has reached 7,448 villages and over 640,000 community members in Ethiopia, Ghana, India and Tanzania.[5] Quality videos hosted on the Access Agriculture website have been used by over a thousand organisations and reached at least 897,000 farmers directly and another 45 million on television. The videos have been used in over 80 countries.[6] At local level, farmers will often show videos on their own initiative.

2   Zossou, E., Van Mele, P., Vodouhe, S.D. and Wanvoeke, J. 2010. Women groups formed in response to public video screenings on rice processing in Benin. *International Journal of Agricultural Sustainability* 8(4): 270–277.
3   Bentley, J., Van Mele, P., Okry, F. and Zossou, E. 2014. Videos that speak for themselves: When non-extensionists show agricultural videos to large audiences. *Development in Practice* 24(7): 921–929.
4   David, S. and Asamoah, C. 2011. Video as a tool for agricultural extension in Africa: A case study from Ghana. *International Journal of Education and Development using Information and Communication Technology* 7(1): 26–41.
5   See http://www.digitalgreen.org/resources
6   See articles on extension hosted by Agro-Insight site: http://agroinsight.com/agricultural-extension.php

## BOX 2: VIDEO CASE STUDIES

Digital Green has produced over 3700 participatory videos in more than 20 languages. The videos are unscripted, but made with a story board. Each video is filmed in one language and designed to be used in one local area. Local people are engaged to show the videos to other local people, facilitate discussion, and to record data on the viewers.

Access Agriculture has produced over 60 farmer learning videos with farmers, in 67 languages. A script is written with each video, to ease translation. The videos are shown by partners and are also placed on www.accessagriculture.org where they can be downloaded for free by extensionists or anyone else.

There are few initiatives designed to use videos on mobile phones, but VideoKheti is a Microsoft project that collaborates with Digital Green to allow villagers to find and watch agricultural videos on a mobile phone. The users can speak or touch the screen to navigate the text-free system, which has 147 videos. It was developed to be used in Hindi. An early study of 20 farmers found that it was difficult to use by people with little education.[7]

### Training materials
#### Manuals for video makers and users
Video Production: Agricultural Education and Communication Department, University of Florida/IFAS Extension. http://edis.ifas.ufl.edu/topic_video_production

Technical advice for video-makers: http://www.accessagriculture.org/node/361

Woodard, J. 2012. *Integrating low-cost video into agricultural development projects: A toolkit for practitioners*. Publication by fhi360 of USAID. Available at: http://www.fhi360.org/sites/default/files/media/documents/Introduction.pdf

#### Video editing software
Pinnacle studios has free software for editing videos on iPad or iPhone: http://en.softonic.com/s/pinnacle-studio-16-ultimate-free-download-full-version

Windows Movie Maker is available in English and other languages: http://windows.microsoft.com/en-au/windows-live/movie-maker

### Further reading
Chowdhury, A.H., Hambly Odame, H. and Hauser, M. 2010. With or without a script? Comparing two styles of participatory video on enhancing local seed innovation system in Bangladesh. *Journal of Agricultural Education and Extension* 16(4): 355–371.

Gandhi, R., Veeraraghavan, R., Toyama, K. and Ramprasad, V. 2009. Digital Green: participatory video & mediated instruction for agricultural extension. *Information Technologies and International Development* 5(1): 1–15.

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Van Mele, P. 2006. Zooming-in, zooming-out: A novel method to scale up local innovations and sustainable technologies. *International Journal of Agricultural Sustainability*, 4(2): 131–142.

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[7] Cuendet, S., Medhi, I., Bali, K. and Cutrell, E. 2013. *VideoKheti: Making video content accessible to low-literate and novice users*. Paris, France: CHI.